

Amendment to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-15. Cancelled (Without disclaimer or prejudice)

16. (New) A method of self-monitoring operation of a proximity sensor comprising at least a transmitter, a receiver, and first and second lightguides, including the steps of:

- producing a beam in the transmitter;
- transmitting the beam into the first lightguide;
- splitting the beam into a first beam and a second beam, within the first lightguide;
- transmitting the second beam into the second lightguide;
- directing the second beam towards the receiver; and
- the receiver receiving and analyzing the second beam to determine the operation of the proximity sensor.

17. (New) A method according to claim 16, wherein:

- the receiving and analyzing by the receiver is executed by detecting the second beam.

18. (New) A method according to claim 16, wherein:

the lightguides are made in one piece.

19. (New) A lightguide system for the use with a proximity sensor comprising:

a first lightguide which directs a first beam into a first predefined direction;

a second lightguide which directs a reflection of the first beam into a second predefined direction;

a beam splitter within the first lightguide which splits an incident beam into a first and a second beam;

a beam directing device which directs the second beam from the first lightguide to the second lightguide; and

the second light guide comprises a beam directing device, which directs the second beam into the second predefined direction.

20. (New) A lightguide system according to claim 19, wherein:

the beam splitter is a light directing device.

21. (New) A lightguide system according to claim 19, wherein:

the beam directing device directs the second beam from the first lightguide to the second lightguide via surfaces which also direct the first beam.

22. (New) A lightguide system according to claim 19, wherein:

the second beam is directed from the first lightguide to the second lightguide via surfaces which did not direct the first beam.

23. (New) A lightguide system according to claim 19, wherein:

the lightguides are made in one piece.

24. (New) A proximity sensor, comprising:

a transmitter comprising a first lightguide which directs a first beam into a first predefined direction;

a receiver;

a lightguide system used with the receiver;

a second lightguide which directs a reflection of the first beam into a second predefined direction;

a beam splitter within the first lightguide which splits an incident beam into a first and a second beam;

a beam directing device which directs the second beam from the first lightguide into the second lightguide; and wherein

the second lightguide comprises a beam directing device which directs the second beam into the second predefined direction.

25. (New) A device including a proximity sensor comprising:

a transmitter including a first lightguide which directs a first beam into a first predefined direction;

a receiver;

a lightguide system used with the receiver;

a second lightguide which directs a reflection of the first beam into a second predefined direction;

a beam splitter within the first lightguide which splits an incident beam into a first and a second beam; and

a beam directing device which directs the second beam from the first lightguide into the second lightguide; and wherein

the second lightguide comprises a beam directing device which directs the second beam into the second predefined direction.

26. (New) A lightguide system according to claim 20, wherein:

the second beam is directed from the first lightguide to the second lightguide via surfaces which did not direct the first beam.

27. (New) A lightguide system according to claim 20, wherein:

the directing device directs the second beam from the first lightguide to the second lightguide via surfaces which also direct the first beam.

28. (New) A lightguide system according to claim 26, wherein:

the second beam is directed from the first lightguide to the second lightguide via surfaces which did not direct the first beam.